

## GMO PBL #1: Local Labeling of GM Foods

### Problem:

How can the current food labeling system in place in Vancouver be made more effective? If you choose not to label foods containing GMOs, create another system to inform consumers about the risks and benefits of their food choices.

### Background<sup>1</sup>

An estimated 70% of processed foods contain GM ingredients, mostly from corn, soy, and canola products. The labeling of GM Foods is a contentious issue. On May 2<sup>nd</sup>, 2005, a coalition of international and Canadian NGOs, including a former minister of the environment, called on the Canadian government to establish mandatory labeling. Despite this, Canada's largest supermarket chain (Loblaw's) has banned foods with GMO-free labels, allegedly due to liability issues. In Canada, a 2002 poll conducted by Decima Research on behalf of the Canadian Association of Consumers found that 88% of Canadians wanted mandatory labeling of GM foods. Within BC, widespread support for such a labeling initiative is also evident. A poll in 2006 found that 79% of British Columbians support the labeling of GM foods. On May 15, 2007, a motion from councilor Heather Deal was tabled in the Vancouver City Council to call on the BC government to provide for the mandatory labeling of GM Foods. In some places in the world labeling of GM foods is a given. For example, the EU has had strict GM labeling regulations in place since the early 90s.

While GM products are subject to safety testing, growing in test plots, and final approval by the Canadian Food Inspection Agency<sup>2</sup> and Health Canada<sup>3</sup> (which enforce the federal Plant Protection Act and Seeds Act), some say that testing is not rigorous enough. In a 2005 study, researchers found that a pea which was transformed with a bean protein resulted in allergenic reactions, due to post-translational modifications in peas which differed from those of the source bean plants.<sup>4</sup>

Supporters of labeling argue that consumers are being prevented from making an informed decision on their food choices. Moreover, they contend that a refusal to label indicates that GM foods may not be as safe as companies and governments claim. However, the issue is not as simple as it seems at first glance and the value of labeling is questionable. Some objections include the following:

- Many products are given labels based on their potential negative impact on human health. For instance, many chocolates have a "may contain peanuts" label and

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<sup>1</sup> Sources:

[http://mostlywater.org/vancouver\\_city\\_council\\_takes\\_on\\_labeling\\_of\\_genetically\\_modified\\_foods](http://mostlywater.org/vancouver_city_council_takes_on_labeling_of_genetically_modified_foods),  
<http://www.cnw.ca/fr/releases/archive/May2007/02/c3962.html> , *Pandora's Box*

<sup>2</sup> Details: <http://www.inspection.gc.ca/english/plaveg/bio/pbobbve.shtml>

<sup>3</sup> Details: [http://www.hc-sc.gc.ca/fn-an/gmf-agm/index\\_e.html](http://www.hc-sc.gc.ca/fn-an/gmf-agm/index_e.html)

<sup>4</sup> Prescott VE, Campbell PM, Moore A, Mattes J, Rothenberg ME, Foster PS, Higgins TJV and Hogan SP. Transgenic expression of bean a-amylase inhibitor in peas results in altered structure and immunogenicity. *J Agricultural and Food Chemistry* 2005, 53, 9023-30.

cigarettes have labels indicating the damage that they can cause to one's body. However, labeling GM foods may not necessarily help consumers make an informed decision about what foods are best for their health. Some argue that labels may turn consumers away from more nutritious products.

- Many cheaper products, such as certain types of vegetable oil, may be made from whatever crops are available at the lowest cost at the time the product is produced. Putting mandatory labeling into place indicating GMO content for such products will likely increase the cost of production and hurt lower-income households that purchase such products.
- It may be difficult for farmers that do not plant GM seeds to determine whether their crops are 100% GMO-free because GM seeds may blow over from neighboring farms and contaminate their crop.
- Alternatively, if the producer chooses not to figure out whether the product contains GMOs or not, the producer might choose a label stating "may contain GMOs". Such an option could lead to the majority of foods being labeled "may contain GMOs", which would make it difficult for consumers wishing to avoid GMOs.

### Guiding Questions:

- What characterizes an informed choice? What value assumptions are you making in your definition? What ethical considerations must be taken into account?
- What defines a GM food?
- What information do consumers require for them to make an informed food choice?
- Is it ok to have negative labeling (GMO-free labels) while having no positive labeling?
- Who will bear the cost of your labeling (or other information-providing) system? Will all consumers benefit?
- How can actors in the community (e.g. religious groups, environmental groups, students) be effectively engaged in the creation of this system?

### Potential Community Engagement

1. The East End Co-op is considering labeling the foods they sell and doing so by engaging with their customers. Speaking to them about their experience could be potentially useful in developing your solution. More information available at: <http://www.east-end-food.coop/>.
2. Green Peace is actively involved in demanding labeling of GM Foods. More information available at: <http://www.greenpeace.org/canada/>
3. City of Vancouver: <http://vancouver.ca/>

### Resources

1. A great breakdown of the concerns surrounding the issue of labeling can be found in Chapter 10 of *Pandora's Box* by Allen McHughen (available at UBC library).
2. Useful articles by CBC:
  - a. Brief overview of the debate over labeling in Canada:  
<http://www.cbc.ca/consumers/market/files/food/gmfood/index.html>.
  - b. Article on conflict in the Consumers' Association of Canada over the labeling of GM Foods:  
[http://www.cbc.ca/consumers/market/files/food/cac\\_gmo/](http://www.cbc.ca/consumers/market/files/food/cac_gmo/)
  - c. Article on Parliaments rejection of a bill in favour of mandatory labeling:  
[http://www.cbc.ca/canada/story/2001/10/17/gmfood\\_labels011017.html](http://www.cbc.ca/canada/story/2001/10/17/gmfood_labels011017.html)
3. A source on the pros and cons of labeling and international labeling regulations:  
<http://library.thinkquest.org/C0129280/e/gene/5.html>
4. EU labeling policy  
[http://ec.europa.eu/food/food/biotechnology/etiquetage/index\\_en.htm](http://ec.europa.eu/food/food/biotechnology/etiquetage/index_en.htm)